

To: Enck, Judith[Enck.Judith@epa.gov]; Spalding, Curt[Spalding.Curt@epa.gov]
From: Szaro, Deb
Sent: Wed 12/7/2016 4:39:59 PM
Subject: RE: News Clips

Thanks Judith. This is phenomenal news and shows the true power of citizen science!!!

From: Enck, Judith
Sent: Wednesday, December 07, 2016 10:28 AM
To: Spalding, Curt <Spalding.Curt@epa.gov>; Szaro, Deb <Szaro.Deb@epa.gov>
Subject: Fwd: News Clips

Deb. Also see the toniwanda Coke article

Sent from my iPhone

Begin forwarded message:

From: Region2 PAD News <Region2_PAD_News@epa.gov>
Date: December 7, 2016 at 6:27:46 AM PST
To: "R2 EPA Region 2 (EPA Staff)" <R2_EPA_Region_2_EPA_Staff@epa.gov>
Subject: News Clips

WSJ

New York to Sue EPA Over Dredging Disposal Site in Long Island Sound

State says agency hasn't sufficiently weighed effects of plan

By Joseph De Avila

Dec. 6, 2016

New York Gov. Andrew Cuomo said Tuesday that the state intends to sue the U.S. Environmental Protection Agency over a plan to set up a new dredging disposal site in the Long Island Sound.

The EPA's plan would allow dredged sludge to be disposed in the eastern part of Long

Island Sound in Connecticut's territorial waters and near New York's Fishers Island. The EPA has said periodic dredging is necessary for ports and harbors so that boats are able to navigate safely through waters close to the shoreline.

The EPA estimates that the eastern Long Island Sound region will need to dispose of up to 22.6 million cubic yards of dredged material over the next 30 years.

New York state says the EPA hasn't sufficiently weighed the cumulative effects of disposing the material in the Long Island Sound. It also said the EPA's plan violated the federal Ocean Dumping Act.

"Continuing to use this precious economic and ecological resource as a dumping ground is unacceptable," said Mr. Cuomo, a Democrat. "We intend to fight this decision using any and all legal means."

Mr. Cuomo said he sent a letter Tuesday to the EPA notifying the agency that New York state would file a lawsuit over the dredging plan in 60 days.

A spokesman for the EPA declined to comment. The EPA said in November that the selection was based on "sound science" and reflected extensive public input. The agency also said there were no other practicable alternatives.

Connecticut Gov. Dannel Malloy, however, has been an advocate for the EPA's dredging plan. Most of the dredged material will come from Connecticut.

Mr. Malloy, a Democrat, said in November that the disposal site in the eastern Long Island Sound would benefit Connecticut's economy and support Electric Boat, a subsidiary of General Dynamics Corp., a Groton, Conn., firm that builds submarines.

"Connecticut ports are an economic driver for commerce throughout the state," a spokesman for Mr. Malloy said. "Open water disposal is safe and does not harm the biological integrity or the water quality of the Sound."

Connecticut ports employ nearly 30,000 people and the state has spent nearly \$17.5 million in maintenance dredging since 2011, according to Mr. Malloy's office.

There are currently four disposal sites in the Long Island Sound, and all are located in Connecticut waters. Those sites are near Darien, East Haven, Old Saybrook and New London.

The sites near New London and Old Saybrook will close on Dec. 23 with the expiration of their term of use.

PHOTO Cargo vessels docked at the Port of New Haven on the Long Island Sound, as seen in 2011. PHOTO: STEVEN SENNE/ASSOCIATED PRESS

Newsday

Cuomo to sue EPA over designation of LI Sound dumping site

December 6, 2016 6:39 PM

By Chau Lam

HIGHLIGHTS

Dredged waste to be dumped near Fishers Island

Governor: Agency's decision violates U.S. criteria

Gov. Andrew M. Cuomo said Tuesday his administration intends to sue the U.S. Environmental Protection Agency to stop a plan to allow up to 20 million cubic yards of dredged waste to be dumped at an open-water site in eastern Long Island Sound — off Fishers Island — over the next three decades.

The governor's decision comes on the same day the EPA issued its final rule, which was published in the federal government's official journal known as the Federal Register.

In a letter sent Tuesday, New York state said the EPA's selection of the disposal site, named the Eastern Long Island Sound Disposal Site, 1.3 square nautical miles large, violates criteria outlined in the federal Ocean Dumping Act, according to a news release issued by the governor's office.

"As I have said time and again, New York is deeply concerned with the EPA's efforts to designate a permanent dumping site in the eastern part of the Long Island Sound," Cuomo said in the release. "Continuing to use this precious economic and ecological resource as a dumping ground is unacceptable and — on behalf of current and future generations of New Yorkers — we intend to fight this decision using any and all legal means."

Harbors, ports and rivers need to be dredged to allow boats, cargo ships and passenger liners to pass safely. However, environmentalists said sand and sediment pulled from the bottom of rivers, harbors and ports can contain mercury, lead and pesticides.

Most of the estimated 20 million cubic yards of dredged sludge will come from Connecticut's industrialized shoreline. The contentious question is where to put the muck, and the cost of different disposal methods.

Robert Evans, who lives on Fishers Island and a board member of the Fishers Island Conservancy, which has been fighting the EPA over open-water dumping in eastern Long Island for more than two decades, said New York has spent millions to meet EPA mandates that benefit the environment.

"When the EPA acts like this it's a slap in the face, and it threatens to derail the entire movement," he said.

edged waste dumping OK in LI Sound

Two open-water dump sites in eastern region of the Sound — New London Disposal Site and Cornfield Shoal Disposal Site — are only authorized for use until Dec. 23, according to the EPA. Once they close there are no other designated long-term disposal sites to accept dredged material in that area.

The nearest two dump sites that could be used — Central Long Island Sound Disposal Site and the Rhode Island Sound Disposal Site — are too far from dredging activities, increasing the time and distance of transporting the muck.

“This, in turn, would greatly increase the cost of such projects and would likely render many dredging projects too expensive to conduct,” said the EPA.

Beginning next month, the Eastern Long Island Sound Disposal Site, 2.3 nautical miles northwest of Fishers Island, can begin to accept dredged waste. However, before any sand and sediment could be disposed, a dumping permit is required. The dump site sits in Connecticut state waters, but it’s only 0.2 miles from New York territorial waters.

An EPA spokesman on Tuesday declined to comment on Cuomo’s announcement, saying the agency does not comment on potential or ongoing litigation.

“The site protections and restrictions we included in the final rule are intended to help meet the goal of reducing or eliminating dredged material disposal in the open waters of Long Island Sound,” EPA’s New England Regional Administrator Curt Spalding said previously.

Photo: An aerial view of Fishers Island on July 3, 2012. Photo Credit: Kevin P. Coughlin

NY Governor to Sue Over Long Island Sound Dredge Disposal

By THE ASSOCIATED PRESS

DEC. 6, 2016

MINEOLA, N.Y. — New York Gov. Andrew Cuomo says he intends to sue the federal government over its plan to allow dredged sediments to be placed in eastern Long Island Sound.

The Environmental Protection Agency approved a plan in November that allows dumping in the Connecticut portion of the waterway that separates the two states.

While Cuomo and New York environmentalists oppose the disposal project, it has been praised by many in Connecticut. Officials there say small marinas and the Naval Submarine Base in Groton (GRAH'-tuhn) rely on having a long-term placement site for dredged materials.

The New York Democrat argues the dumping poses environmental dangers.

The EPA has previously said it disagrees that dredged sediment could threaten New York habitats.

New York's suit won't be formally filed for at least 60 days.

TIMES UNION

State deploys response trailers along crude oil transportation corridor

By Matthew Hamilton

December 5, 2016

The state will station 24 emergency response trailers at key locations along the state's crude oil transportation corridor, including one in the City of Albany and four in the Capital Region, Gov. Andrew Cuomo's office said Monday.

The trailers will be equipped with absorbent materials, booms and other tools used to control and contain crude oil and petroleum spills. They will be managed by the state Department of Environmental Conservation and county emergency management entities.

One trailer each will be deployed in Albany, Buffalo and Rochester. One trailer each will be deployed to the 21 "Crude by Rail Mainline" counties, including Albany, Greene, Montgomery and Schenectady counties.

"Strategically locating these new spill response trailers along the state's crude oil corridor will protect our communities and strengthen New York's spill response capabilities," DEC Commissioner Basil Seggos said in a statement. "DEC will continue to work with federal and local partners to effectively mitigate risks posed by the transport of high volume of crude oil."

The full release from Cuomo's office is below:

Governor Andrew M. Cuomo today announced that the New York State Department of Environmental Conservation and the New York State Division of Homeland Security and Emergency Services Office of Emergency Management are deploying a fleet of 24 fully equipped Emergency Response Trailers across New York's crude oil transportation corridor. The state-of-the-art trailers will be stationed at key locations and strengthen New York's response to crude oil transportation incidents in support of the state's recently developed Geographic Response Plans.

"Protecting public safety is our top priority and these new trailers will help ensure our first responders can respond swiftly and efficiently in any spill emergency," Governor Cuomo said. "This administration remains committed to enforcing the toughest possible standards and we will continue working so that crude oil is transported safely across New York."

The new Emergency Response Trailers will be stationed across the state and managed by DEC and county entities responsible for emergency management. Locations for trailer deployment will be coordinated with DEC's Division of Environmental Remediation Emergency Response Coordination Section and based on approved Geographic Response

Plans. The GRPs include strategies and tactics to respond to crude oil incidents that are specific to each as identified by local county emergency planning committees.

“Thanks to Governor Cuomo’s leadership, New York is a national leader in rail safety with the most stringent rail regulations in the country. Strategically locating these new spill response trailers along the state’s crude oil corridor will protect our communities and strengthen New York’s spill response capabilities,” DEC Commissioner Basil Seggos said. “DEC will continue to work with federal and local partners to effectively mitigate risks posed by the transport of high volume of crude oil.”

“The new emergency response trailers give first responders another valuable tool to use to respond to any crude oil or chemical spill incident,” said Division of Homeland Security and Emergency Services Commissioner John Melville said. “I applaud the Governor’s ongoing commitment to help ensure that the state’s first responders have the needed equipment and training to help keep our communities safe.”

Each trailer is equipped with absorbent material, booms, and other tools necessary to control and contain a crude oil or petroleum spill. The trailers can be quickly deployed to address spill emergencies and help control and limit any resulting environmental impacts. Photos of the trailers are available [here](#).

Three of the 24 trailers will be dispatched to Buffalo, Albany, and Rochester. Twenty one trailers will be dispatched to New York’s 21 Crude by Rail Mainline counties, one trailer for each county. By region:

Three for Region 3 – Orange, Rockland, Ulster

Four for Region 4 – Albany, Greene, Montgomery, Schenectady

Four for Region 5 – Clinton, Essex, Saratoga, Washington

Two for Region 6 – Herkimer, Oneida

Three for Region 7 – Cayuga, Madison, Onondaga,

Three for Region 8 – Genesee, Monroe, Wayne

Two for Region 9 – Chautauqua, Erie

The Emergency Response Trailers build on Governor Cuomo’s ongoing commitment to reduce potential dangers associated with the transport of crude oil across New York State. Following a series of out-of-state disasters involving the transport of crude oil by rail, the State has taken a series of aggressive actions to improve the safety and reliability of the practice.

PHOTO A crude oil emergency response trailer, 24 of which will be deployed along the state’s crude oil transportation corridor. (Photo provided)

BUFFALO NEWS

Air quality in Tonawanda improves after changes made at Tonawanda Coke

PHOTO The Department of Environmental Conservation continues to operate two air quality monitoring sites that are downwind of the Tonawanda Coke Corp. (Derek Gee/News file photo)

By Joseph Popiolkowski

Published December 6, 2016

Air quality in the Tonawandas has significantly improved over the last eight years as levels of certain pollutants continue to fall, state environmental officials announced Tuesday.

The state Department of Environmental Conservation's Tonawanda Air Quality Study ended in mid-2008, but the DEC continues to operate two air quality monitors -- on Grand Island Boulevard and in the Brookside Terrace neighborhood -- and report periodically on findings.

Air quality monitoring showed a 92 percent reduction in benzene from 2008 levels at the Grand Island Boulevard site, and a 74 percent reduction in benzene at the Brookside Terrace site.

"Overall, since we've done the initial study there's been a big improvement in air quality in the Tonawanda area," said Thomas Gentile, chief of the DEC's Air Toxics Section in Albany.

Gentile and another official presented the most recent monitoring data Tuesday night to a crowd of about 35 residents in River Road Fire Hall, at an event organized by Clean Air Coalition.

The updated data pleased environmental activists who have long blamed Tonawanda Coke's harmful emissions for health problems among residents.

"Hearing that benzene and other hazardous air pollutants in our community have been reduced by nearly 92 percent came as a relief for our community tonight," said Jackie James-Creedon, of Citizen Science Community Resources. "We are breathing cleaner air in our community today because average citizens took action and worked. The DEC should be commended for their supportive work in accomplishing this goal."

Both monitoring sites are downwind of the Tonawanda Coke Corp., which was found to be emitting high levels of toxic benzene from its coke oven. The benzene reductions were attributed to operational modifications made by Tonawanda Coke after DEC and Environmental Protection Agency inspections of the plant, and subsequent enforcement actions.

"That plant was leaking really bad," Gentile said. "Right now, it's not anymore. We're not seeing it."

The modifications include installation of flares to manage the coke oven gas; numerous repairs to address leaks in the coke oven gas system; implementation of an enhanced leak detection and repair program; and total elimination of ammonia emissions.

As a result, a steady decrease in contaminants such as benzene, 1,3-Butadiene and acrolein was recorded, Al Carlacci, an inspector in the Division of Air Resources, told the crowd.

"We're at a point where we're in compliance at the facility and the data that we're measuring shows that we're on par with other areas," Carlacci said, after the presentation. "There's really not much more we can do for this particular facility."

He noted that the facility is currently not operating anywhere near full capacity, but that any future increase in production will not result in a corresponding increase in emissions because they are now controlled.

The cancer risk factor for benzene at the Grand Island Boulevard site went from 75 in 1 million residents to six in 1 million, and 15 in 1 million to four in 1 million at Brookside Terrace, Gentile said.

"It's trending down at both sites," he said. "Things are looking much better than what they were when we first got here and started the study."

Gentile said the DEC will continue air quality monitoring efforts.

"We're still here," Gentile said. "We're still working on it. We still look at the data. We still really care about air quality in the community and we're not going to go away."

Record

EPA's Ringwood Superfund meeting set for tonight

By David M Zimmer

December 6, 2016

Story Highlights

EPA: 1,4-dioxane in groundwater poses no immediate health threat

Borough officials seek more information before signing off on remediation plan

EPA meeting set for 7 p.m. at Ryerson Middle School, 130 Valley Road

RINGWOOD — The Environmental Protection Agency will host a meeting tonight on the most recent groundwater report for the Ford Superfund site.

The meeting, scheduled for 7 p.m., is not expected to reveal any new information, the federal agency's regional Superfund cleanup chief, Walter Mugdan, wrote in a Nov. 22 letter to Borough Administrator Scott Heck. But Pat Seppi of the EPA's public affairs office said it would be an opportunity to answer any questions the public may have about the 3,774-page report issued in late October.

The meeting will be held at the Ryerson Middle School at 130 Valley Road and may also include a discussion on the creation of a community involvement plan, the reorganization of the community advisory group and the addition of a technical adviser for the site off Peters Mine Road, Seppi said.

The primary topic is expected to be the detection of benzene and 1,4-dioxane in the borough-owned site's groundwater. The presence of 1,4-dioxane, which is classified by the EPA as a probable carcinogen, has raised concerns since it was discovered last year, including its impact on a proposal to cap the contaminated site.

The extent of the 1,4-dioxane contamination is a serious concern, Heck said last week, suggesting it would be irresponsible for the Borough Council to move forward with a remediation plan without having complete information.

The 1,4-dioxane and benzene levels detected do not present an immediate health threat, according to an EPA fact sheet dated Nov. 9. The water is not used for drinking, and there has been no evidence that the groundwater is affecting the Wanaque Reservoir, according to the EPA document.

The proposed capping plan calls for the site to be paved and used as a recycling center, according to borough officials. A second plan calls for excavating and removing about 166,000 tons of contaminated soil from the O'Connor Disposal Area for an estimated \$32.6 million, roughly six times the cost of capping the site.

The paving project is the borough's preferred plan, Heck said. Its \$5.4 million cost would be covered by the Ford Motor Co. and borough insurance. It was put on hold in the spring, however, because of concerns over the 1,4-dioxane.

With the council's delaying a final decision on the proposal despite a Nov. 22 deadline, the EPA has required both plans to be developed simultaneously to avoid any lost time. Heck said the requirement will not affect the borough. Ford is executing the designs, he said.

The pollution from paint sludge and other industrial waste from Ford's former Mahwah plant has blighted the area since the late 1960s. The EPA says the borough was complicit in those activities and is partially liable for the cleanup.

Staff Writer Scott Fallon contributed to this report.

New York City Has 5 Babies Born With Zika-Related Brain Issue

By MARC SANTORA

DEC. 7, 2016

NY Times

At least four babies have been born in New York City with Zika-related brain developmental symptoms since July, the city's health department said on Wednesday, bringing the total number of such births to five.

The numbers were announced in an alert the Department of Health and Mental Hygiene sent to doctors, urging them to remain vigilant and to continue to warn pregnant women and sexually active women of reproductive age not using a reliable form of birth control against traveling to places where the virus is spreading.

It was a reminder that while the threat of the virus may have eased in many places around the world, it still poses a danger and its consequences are likely to be felt for some time.

Zika is primarily transmitted by mosquitoes but can also be passed on through sex. In most cases, the virus causes only mild illness, but the danger to women pregnant or trying to become pregnant is much greater, because of the impact the disease can have on fetal development. A small percentage of women with the virus have given birth to infants with a abnormally small heads and stunted brain growth — a condition known as microcephaly.

As of Friday, about 8,000 New Yorkers have been tested for Zika and 962 have tested positive, including 325 pregnant women, according to the health department.

All the cases were associated with travel; six involved sexual transmission by a partner who had been to the areas hit hardest by the Zika epidemic.

In addition to the five babies with brain developmental symptoms, eight other infants have tested positive for Zika virus in New York City but have not shown evidence of what is being called congenital Zika virus syndrome. Though much of the early focus of public health officials centered on children born with microcephaly, there is concern that the virus could cause a host of other developmental problems, including brain and eye abnormalities, shortened or hardened muscles and tendons, and neurological impairment.

"Today's news is a reminder that Zika continues to be a threat to pregnant women and their babies," said the city's health commissioner, Dr. Mary T. Bassett.

"We are closely following all babies born to mothers who test positive for Zika infection and will connect parents to available services to improve their child's quality of life," she added.

Exposed: The Areas America Could Abandon First

Nov 29, 2016 7:30 AM EST

By Christopher Flavelle

Bloomberg First

You could drive a shrimp boat 1,300 miles along the Gulf Coast from Corpus Christi to Fort Myers and not pass a single county or parish that voted against Donald Trump. The cities and towns along that shoreline had better hope he remembers their support: Without increasing levels of federal spending, climate change could push parts of them out of existence.

So far this year, the Federal Emergency Management Agency has spent \$1.1 billion on what are called Individual Assistance payments, which help households recover from natural disasters. There are no limits on the number of times a household can apply, so the program isn't just a safety net; for some people, it's effectively a subsidy to live in areas that are especially vulnerable to hurricanes, floods and storm surges.

That hasn't gone unnoticed in Washington. In 1999, a Nebraska congressman introduced a bill preventing some properties with multiple claims from getting help -- not just disaster relief, but also subsidized flood insurance. Two years later, the George W. Bush administration's first budget proposed denying aid to the "worst offending repetitive loss properties." Under President Barack Obama, FEMA proposed reducing disaster aid for public buildings damaged more than once in the previous decade if local governments hadn't done anything to protect them.¹

None of those proposals took effect. But as extreme weather gets worse, those federal subsidies will only become more expensive -- increasing the need to rethink government support for those who choose to live in harm's way.

"Climate change is real and will lead to even more frequent and costly disasters," Rafael Lemaitre, FEMA's director of public affairs, told me. "We must continue to work with states to implement longer-term projects and strategies that mitigate against climate change."

That means it's time to consider an impolitic question: If federal support gets rolled back, which areas will people have the greatest incentive to leave?

To answer that, I asked FEMA which parts of the country have the most households that repeatedly get Individual Assistance payments, which are a useful proxy for exposure to all types of extreme weather. The agency gave me a list of 1,930 counties where at least one address had requested such aid more than once since 1998 -- 1.3 million households in total. That data, which the agency said it had never before compiled, is reflected in the graphic below; the shading represents the number of households per capita that have applied for FEMA aid multiple times.

Unsurprisingly, the areas where households are most likely to repeatedly request aid are generally along coasts. The surprise is how they're distributed: Rather than being spread uniformly along shorelines, a small number of counties account for the most repeat claims -- one more reminder that the burden of climate change will not fall evenly.

That's also true within the most affected counties. The charts below show the number of households per capita requesting disaster aid more than once since 1998, by ZIP code, for four areas with especially high concentrations of repetitive claims.² These charts don't just map the losers from any reduction in federal support: At a more basic level, they show some of the places Americans will face the most pressure to abandon because of extreme

weather -- at least, people who can't afford the full cost of recovering from natural disasters.

At the easternmost edge of the Texas coast, Jefferson County has almost 57,000 addresses with multiple requests for FEMA aid since 1998 -- about one address for every five of the county's 250,000 residents. Households around Port Arthur are the most likely to make repeated requests for assistance, along with the area around Bridge City in adjacent Orange County, as well as the sparsely populated coastal areas of Louisiana's Cameron Parish on either side of Calcasieu Lake.

Households in the eastern part of Louisiana, from New Orleans to the bayou towns to the south and east, are just as likely to make repeated requests for federal help. It's hard to imagine the federal government not doing whatever it can to protect New Orleans. But some smaller towns, especially in Plaquemines Parish and St. Bernard Parish, could struggle to convince federal and state officials that they should survive.

Alabama has 67 counties, and every one of them has households that have sought federal disaster aid multiple times since 1998. But Mobile County has the greatest number of such properties, even accounting for population -- almost 40,000 households, one for every 10 residents.

Those households are clustered to the north and south of downtown Mobile, as well as at the mouth of Mobile Bay and on Dauphin Island -- a spot Orrin H. Pilkey, a geology professor at Duke University, calls "the worst development site on any American barrier island," owing to its residents' tendency to repeatedly request disaster aid.

For all the attention it gets because of rising sea levels and nuisance flooding, Florida's exposure to climate change isn't that bad, at least measured by the share of households that repeatedly seek aid. And the most vulnerable counties are midway along the Atlantic coast -- including Indian River County, home to Vero Beach, and the southern part of Brevard County just across the Saint Sebastian River.

Of course, federal funding isn't fate. In some cases, restricting FEMA payments (whether disaster relief or flood insurance payments) for repetitive-loss households will spur local governments to come up with their own solutions: spending more money on storm-water management, sea walls or elevating homes. And if sea levels start rising more quickly, then inundation, not repeated storm damage, could determine which communities have to be abandoned first.

What's certain is that extreme weather will only get worse, inflicting disproportionate pain on a relatively small share of the country. It's already possible to make intelligent guesses about which areas those will be. The question for policy makers is whether to keep sheltering those people from the inevitable. Then, when sheltering no longer makes sense, an even harder question: how to help them leave.

1. Thanks to staff from the Pew Charitable Trusts, who provided a list of federal proposals to limit disaster assistance for households that make multiple requests.

□

2. Calculating multiple-claim households per capita for rural ZIP codes isn't a perfect process. I used population figures from the U.S. Census Bureau's ZIP Code Tabulation Areas, which the bureau told me are generally synonymous with ZIP codes but not always an exact match. Timing matters, too: The population of some areas in Louisiana and eastern Texas declined after Hurricane Katrina, so for ZIP codes in those states I averaged 2000 and 2010 population levels.

□

This column does not necessarily reflect the opinion of the editorial board or Bloomberg LP and its owners.

Editorial

NYT

The Great and Dying Barrier Reef

By THE EDITORIAL BOARD

DEC. 6, 2016

Photo A diver checking bleached coral at Heron Island on the Great Barrier Reef in April. Credit XL Catlin Seaview Survey, via Agence France-Presse — Getty Images

Coral reefs are among the most remarkable achievements of nature, structures built in shallow water over long periods of time out of the skeletons of tiny polyps. Magnificent in their bright colors, they cover less than 0.2 percent of the oceans and yet are second only to rain forests in the biodiversity they support, including a quarter of all marine life. And they're in deep trouble.

The problem is that reefs can live in only a fairly narrow temperature range, and climate change, when combined with other natural phenomena, can starve the coral polyps to death. That's what has now happened, according to data released last week by Australian scientists: El Niño — a periodic heating of the Pacific Ocean — combined with global warming to cause mass bleaching throughout the 1,400-mile Great Barrier Reef, which extends off Australia's northeast coast.

Bleaching occurs when warm waters prompt the coral polyps to reject the algae that live on them and provide them with nutrients — and their bright colors. When water temperatures drop in time, the algae return and the reef revives. But if temperatures stay high too long, as they did this year, the corals start to die off.

The data was released just before the Australian government issued a report to the United Nations Educational, Scientific and Cultural Organization, or Unesco, which has proclaimed the Great Barrier Reef a World Heritage Site. The report was meant to reassure Unesco that the risks to the reef were being well managed under a 35-year plan Australia produced last year outlining measures to limit sediment, chemical runoff and other threats.

The report was not wholly reassuring. For one thing, it ignored the Queensland state government's decision to permit development of the enormous (and enormously controversial) Carmichael coal mine about 200 miles from the reef. Environmentalists have furiously opposed the mine for various reasons, but chiefly for the enormous quantities of carbon dioxide pollution it would produce.

In the final reckoning, it is these and other human-caused emissions that pose the greatest danger to reefs everywhere. Of these, the Great Barrier Reef is among the most spectacular. It is hard to understand how Australia can claim "good progress" on protecting it even as it proceeds with a project that poses so clear and imminent a threat.

Letters To The Editor

The Jersey Journal

December 06, 2016 at 4:32 PM

American Dream Mall continues to rip-off taxpayers

The American Dream Mall is coming out with new designs, timeframes, and leases for their unneeded mall in the Meadowlands, but we have heard it all before. This project was supposed to be finished in 2005, 2007, 2009, 2011 etc. This is the 3rd delay in financing by the new owners in spite of all of the \$1.15 billion in public financing.

This project is more toxic than a Superfund Site. Banks and financial markets are clearly trying to stay away from this project because it is an American Nightmare. The problem is while they are delaying this project, they are taking a gamble with \$1.15 billion of taxpayer money that could be spent somewhere else. All of this money could clearly be better spent on building new schools, taking lead out of our drinking water, and cleaning up our toxic sites.

This mall is a dirty deal for the people of New Jersey because we will lose hundreds of millions of dollars in revenue. Instead of paying their fair share of taxes, American Dream will only pay off their bonds in lieu of taxes. That means New Jersey will be losing revenue because the mall will cost essential services. This is clearly one of the biggest sellouts and largest subsidies in state history.

What is even worse is that this mall will be a nightmare for the environment and the people of the Meadowlands. The American Dream complex in Meadowlands will add more unnecessary development, pollution and congestion in an already environmentally sensitive and heavily trafficked area. Instead of the American Dream, this project should be called the American Scheme."

JEFF TITTEL

DIRECTOR, NJ SIERRA CLUB

Washington Post

Extreme rainfall risks could triple in the U.S. under climate change, scientists warn

By Chelsea Harvey

DEC. 5

U.S. residents may want to start preparing for a stormier future, scientists say. According to a new study, future climate change could cause an increase in extreme precipitation events throughout much of the country — in fact, these events could become up to five times more frequent in some areas.

It's an outcome many climate scientists have already predicted for the planet as a whole, according to Andreas Prein, a scientist at the National Center for Atmospheric Research and the new study's lead author.

"We expect that intense rainfall extremes will get more frequent and more intense in the future climate because if we warm up the atmosphere, air can hold more moisture," he said. In fact, he added, records from the past few decades indicate that we're already seeing this effect in the warming United States.

"What we were interested in is how these kinds of storms might change in the future," Prein said.

The new study, published Monday in the journal *Nature Climate Change*, investigated the relationship between rising temperatures and precipitation throughout the lower 48 states. Using special climate models, the researchers simulated precipitation across the continent under both current climate conditions and a hypothetical high-warming, or "business-as-usual," scenario.

They found that the way warming affects precipitation depends a lot on humidity — the amount of moisture that's available in the air to begin with. In moist locations, rising temperatures tend to cause an increase in extreme precipitation, while the opposite can be true in drier places. In general, there tends to be a "sweet spot" in terms of the temperature that produces the most extreme precipitation events on average in the United States, Prein said — currently, it's about 80 degrees Fahrenheit.

But, he noted, the study suggests that "in the future climate, storms keep on intensifying up to something like 87 or 88 degrees Fahrenheit."

This is because under future climate change, many parts of the nation will become both warmer and wetter. As a result, much of the country will see an increase in both the frequency and intensity of extreme precipitation events. This is especially true for parts of the Gulf and Atlantic coasts, as well as some mountain regions like the Rockies, where humidity is high to begin with.

On average across the U.S., extreme precipitation events may become nearly three times more likely, according to Prein. And at highest, their frequency may increase five-fold in

some locations. One way to think about this is to imagine the most intense storm of the summer, Prein said. In the future, a storm of that magnitude might occur five times in a season instead of just once.

The researchers expect the intensity of these events, or the amount of precipitation they produce, to spike as well — by as much as 70 percent in some cases. This means a storm that produced three inches of rain in the past, for example, might produce more than five inches in the future.

This could be a problem for communities across the country in the future, who may need to start thinking about updating their infrastructure to deal with a future uptick in extreme storms. But there's still hope: The new study relies on a business-as-usual scenario, meaning a situation in which current warming rates continue unabated into the future. With a serious effort at cutting greenhouse gas emissions and slowing the progression of climate change, these situations could still be avoided.

So the new study serves as a warning of what could happen in the future, but not necessarily a definite forecast.

"If we can manage to level out temperature increases at a lower rate than what we see here...then the consequences will be less," Prein said.

PHOTO Cars drive on the flooded NC Hwy 12 in Rodanthe, N.C. after Tropical Storm Hermine passed the Outer Banks in September. (AP Photo/Tom Copeland)

Politico

Civic group finds insufficient preparation for rising sea levels

By David Giambusso

12/07/16 05:26 AM EST

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Sea levels are rising at an accelerated rate, threatening the economies and health of the region's coastal communities, but most governments aren't doing enough to prepare for the changes, a new report by the Regional Plan Association concludes.

The RPA, a 90-year-old organization, releases an exhaustive regional plan every generation or so and the next one is due out next year. The report released Tuesday, "Under Water: How Sea Level Rise Threatens the Tri-State Region," is a preamble of sorts to the major publication due out in 2017.

Story Continued Below

Most agree rising sea levels, the result of thermal expansion and melting polar ice caps, is a problem like no other the association or planning community have faced.

The report uses models by the National Oceanic and Atmospheric Administration and the U.S. Geological Survey to map out projections over the next decades.

"The pace at which seas are rising is accelerating. Sea levels could rise around one foot as soon as the 2030s," the report states. "Three feet could occur as early as the 2080s. Six feet of sea level rise could come early in the next century."

Among the most imperiled areas in New Jersey are the Meadowlands region, Jersey City and Hoboken, and the barrier beach and back bay communities of the Jersey Shore. In New York City and Long Island, the critical areas are the Rockaways, Jamaica Bay, Coney Island, the East Shore of Staten Island and Long Island's south shore.

Examples in the report grow more severe with each foot of projected sea level rise. At three feet, thousands of residents of the Meadowlands could be permanently flooded. At six feet, half of Hoboken could be displaced and parts of Newark will be permanently under water.

In New York City, a six-foot rise in sea level would displace about 200,000 residents. Most of the Rockaway peninsula would be under water and half of the population of Coney Island would be displaced, the report states.

"Taking into account the latest scientific findings on sea level rise and climate change, the study finds that many of the major resilience policies, plans and projects under development today fall short of adequately addressing the long term, existential threat of permanent flooding from sea level rise," the report states.

New York City, under both Mayor Mike Bloomberg and Mayor Bill de Blasio, is spending billions of dollars on planning and redesigning neighborhoods to prepare for rising sea levels.

Other local governments, though, too often address short-term flooding problems while ignoring the fact that within 50 to 100 years coastlines will be almost completely altered, the report stated.

"The reason why we haven't made more progress in preparing our country and the world for these problems is that the problems are just too big," said Seth Pinsky, an executive at RXR Realty who served as Bloomberg's director of a special initiative for rebuilding and resiliency.

Pinsky joined Dan Zarrilli, de Blasio's climate chief, and others on a panel Tuesday to discuss the report's findings.

"Government is the critical piece here and it's a little bit worrying the direction our government is going in," Pinsky said, referring to the election of Donald Trump.

But even pre-Trump, governments have been focusing too much on short-term fixes to flooding rather than the long-term reality that coastlines as we know them will likely not exist in 100 years, the report says.

"Current resilience approaches mainly focus on storm surge and do not adequately tackle

the challenge of long term permanent flooding," the report states. "None of the projects currently pursue a regional approach."

While billions of dollars are being spent constructing flood walls and elevating homes, the RPA and others are working on the grim prospect of telling some communities that they should stop developing and consider moving to higher ground.

"We can develop engineering solutions, continually pumping more sand onto beaches or building higher berms and sea walls around communities and infrastructure, installing pumps to keep the water out," the report states. "We can learn to live with the water, elevating more structures and infrastructure and adjusting to a new life on less dry ground or we can phase out new development and retreat from at risk places over the coming decades, returning the land to nature."

To some extent that has already happened. New Jersey's Blue Acres program uses federal and state dollars to buy homes from residents in chronically flooded areas at pre-Sandy market rates. The state then tears down the homes and converts them into open space which serves as an added buffer to flooding.

But RPA is advocating for a comprehensive plan for the region to address the short and long-term threats.

Among the most important solutions cited is reducing carbon emissions to stay the worst effects of rising seas. Other actions include detailed planning for the short and long term. Planning should include returning as much coastal land as possible to nature to provide a buffer, the report states. Sea walls, levees and pumps are also short-term solutions.

RPA president Tom Wright said combating sea level rise should be atop every government agency's agenda.

"I still feel like there's a disconnect that we ought to confront here," Wright said. "What's going to take to get this embedded in the conversation?"

A full copy of the report can be read here: <http://bit.ly/2g6itqE>

NorthJersey.com

Training helped firefighters rescue man from trench

By Mollie Shauger

December 7, 2016

Montclair firefighters and their local counterparts put years of training to work on Saturday, when they rescued a man who became trapped as he was removing an underground oil tank from a yard, officials said.

The Montclair Fire Department received a report of a man trapped in a trench on Linden Avenue at 1:25 p.m. on Dec. 3, according to the municipality.

The man, who had been contracted to remove the tank, was reportedly attempting to cut it when he became pinned.

"It appears [the worker] was trying to cut the tank into pieces. [He] removed the top portion and got into the tank, and that's when dirt pushed down metal on top of him, trapping him," Montclair Fire Chief John Herrmann told The Record and The Montclair Times.

The soil around him collapsed, covering him up to his chest, according to a township statement.

The man's name was not released.

The Fire Department responded within minutes of getting the call, Herrmann said.

"Essentially, our personnel are trained in regards to these type of incidents. They have to make the area around the trench safe so they don't cause further collapse," Herrmann said.

The chief said first responders put down pieces of wood as "ground pads" to distribute weight over the hole.

"They also monitor the air inside to make sure there are no issues with explosive gases or oxygen deficiencies," he said.

#MontclairNJ#firefighters rescue man from trench pic.twitter.com/PCHGBJXKVc

— Montclair, NJ (@MontclairNJGov) December 6, 2016

Rescuers then attached "come alongs" and rope systems to pull the metal from the person. They used a firetruck ladder to create a pulley-type system, Herrmann said. As the metal was being lifted, they placed airbags around the victim to protect him.

It took about an hour and a half and approximately 25 people, consisting of medical and ambulance personnel and firefighters from neighboring towns, to extricate the man.

Firefighters from Cedar Grove, Caldwell and Millburn assisted.

The victim was conscious when he was freed and placed on a stretcher. He was transported to University Hospital in Newark for minor injuries, though his injuries weren't specified. His condition was not immediately known on Tuesday, according to Herrmann.

The chief said the incident is being investigated. The Occupational Safety and Health Administration was contacted, as is normal for cases such as these.

The agency confirmed on Tuesday that it was investigating and said that the contractor, Blue Sands Environmental LLC in Verona, had no prior OSHA history.

Herrmann said the Montclair Fire Department works with Cedar Grove to train for trench rescues such as this one. They've responded to similar incidents in West Orange, Maplewood and Caldwell.

The fire chief commended the people involved in the rescue.

"We've been training on this now for about 11 years. Our personnel go through an annual refresher where they perform ... go through the evolutions," Herrmann said. "Everyone just really did a great job working together to bring it to a good conclusion."

Cedar Grove Fire Chief John Bannon did not immediately respond to a request for comment.

NYT

Climate Change Will Bring Wetter Storms in U.S., Study Says

By TATIANA SCHLOSSBERG

DEC. 6, 2016

Photo Cattle were herded through floodwaters near Chenango, Tex., in June. Rainstorms in parts of the United States may become more frequent and intense if greenhouse gas emissions remain at current levels, researchers say. Credit David J. Phillip/Associated Press

Decades of research (and perhaps your own recent experiences on hot, humid days) have suggested that climate change will lead to an increase in big storms that cause flash floods, landslides and other natural disasters. Now, a new study shows that such intense precipitation will most likely increase across the continental United States, but with important regional variations.

The study by scientists from the National Center for Atmospheric Research in Boulder, Colo., published on Monday in *Nature Climate Change*, found that across the country, rainstorms may become more frequent and intense if greenhouse gas emissions remain at current levels. The biggest increase would be in the Northeast and the Gulf Coast.

In fact, the study shows that these intense storms could become five times as frequent. And when they do happen, there could be up to 70 percent more rain, potentially turning a heavy but not catastrophic storm into something closer to a biblical flood.

Other regions, like the Pacific Northwest, already quite wet, and the central United States, might become drier on average, but even there extreme rainfall is likely to intensify, the researchers said. That means there could be both an increased risk of droughts and of flash floods. The study found that humidity was a key factor. Extreme precipitation is likely to increase with rising temperatures because of growing atmospheric humidity, leading to a higher risk of flash flooding nationwide.

Climate scientists had anticipated these results and have already seen some of them play out, with serious flooding in New England and Louisiana over the last several years. But this study provides a new layer of detail and analysis, said Kevin E. Trenberth, a senior researcher at the National Center for Atmospheric Research who was not involved in it.

Dr. Trenberth said that while the future may not look exactly as predicted, “It builds confidence in our previous work and adds to the urgency that this is the sort of thing we need to pay attention to.”

The researchers divided the continental United States into roughly 2.5-mile square grids and used computer simulations to look at extreme precipitation — on an hourly basis — in each square, with precipitation data from 2000 to 2013.

Andreas Prein, the lead author of the study, said that there was some variation depending on region, and that some areas of the country would not be as affected by these types of storms. For instance, while the Pacific Northwest is likely to see more intense winter storms, summer thunderstorms will probably not increase in intensity, he said.

Dr. Prein said the results of this study showed that many areas of the country would need to build or restore infrastructure, including reservoirs and storm sewers, to handle the intense rainfall.

One area of particular concern is the Midwest, which is already becoming drier on average, especially in the summer, Dr. Prein said. However, he added, “The extreme events there are getting more frequent and more intense.”

It might seem as though big rainstorms would help alleviate drought in the Midwest or elsewhere, but the opposite can actually be true, Dr. Prein said. If a heavy rainstorm occurs during a drought, it can lead to soil erosion, washing away the plants that help the soil absorb moisture.

Without regular, gentler rain to restore the soil, he said, conditions will continue to worsen.

“Droughts and extreme rainstorms?” Dr. Prein said. “This could be a very harmful combination.”

NYT

Google Says It Will Run Entirely on Renewable Energy in 2017

By QUENTIN HARDY

DEC. 6, 2016

Photo Google headquarters in Mountain View, Calif. Officials hope to be dependent on renewable energy by next year. Last year, the online company consumed as much energy as San Francisco. Credit Justin Sullivan/Getty Images

MINCO, Okla. — Last year, Google consumed as much energy as the city of San Francisco. Next year, it said, all of that energy will come from wind farms and solar panels.

The online giant said on Tuesday that all of its data centers around the world will be entirely powered with renewable energy sources sometime next year.

This is not to say that Google computers will consume nothing but wind and solar power. Like almost any company, Google gets power from a power company, which operates an energy grid typically supplied by a number of sources, including hydroelectric dams, natural gas, coal and wind power.

What Google has done over the last decade, with relatively little fanfare, is participate in a number of large-scale deals with renewable producers, typically guaranteeing to buy the energy they produce with their wind turbines and solar cells. With those guarantees, wind companies can obtain bank financing to build more turbines.

The power created by the renewables is plugged into the utility grid, so that Google's usage presents no net consumption of fossil fuels and the pool of electricity gets a relatively larger share of renewable sources.

"We are the largest corporate purchaser of renewable energy in the world," said Joe Kava, Google's senior vice president of technical infrastructure. "It's good for the economy, good for business and good for our shareholders."

Unlike carbon-based power, Mr. Kava said, wind supply prices do not fluctuate, enabling Google to plan better. In addition, the more renewable energy it buys, the cheaper those sources get. In some places, like Chile, Google said, renewables have at times become cheaper than fossil fuels.

Whether Google is the largest buyer of renewables would be difficult to verify, as many industries do not release data on how much energy they consume. There is no doubt, however, that Google's large computer complexes, along with similar global operations by Amazon and Microsoft, are among the world's fastest-growing new consumers of electricity.

Google hopes that success in working with large wind farms, like the 50,000-acre facility in Minco, Okla., which supplies Google's large data center in Pryor, Okla., will spur development of the industry. NextEra Energy, which owns the wind farm, has about 115 wind farms in the United States and Canada.

Photo A 50,000-acre wind farm facility in Minco, Okla., supplies energy to Google's large data center in Pryor, Okla. Credit Sue Ogrocki/Associated Press

About 25 percent of United States electricity goes to businesses, and companies like Google are now about 2 percentage points of that. Dominion Virginia Power, located in a state with perhaps the world's largest concentration of data centers, last year had a demand increase from those customers of 9 percent, while overall demand was nearly flat, according to Dominion.

Google operates eight different businesses, including internet search engines, YouTube

and Gmail, each of which has over 1 billion customers. They run on a global network of 13 large-scale data centers, each one a complex of many buildings containing hundreds of thousands of computers.

The 5.7 terawatt-hours of electricity Google consumed in 2015 “is equal to the output of two 500 megawatt coal plants,” said Jonathan Koomey, a lecturer in the school of earth, energy and environmental sciences at Stanford. That is enough for two 140,000-person towns. “For one company to be doing this is a very big deal. It means other companies of a similar scale will feel pressure to move.”

It moves the needle on costs to have a big consumer, Mr. Koomey added, since a larger market tends to allow for economies of scale and more innovation. “Every time you double production, you reduce the cost of solar by about 20 percent. Wind goes down 10 to 12 percent,” he said.

Facebook has entered into similar deals with wind producers. Last week, Amazon reiterated its long-term commitment to power its machines entirely with renewable energy, though for 2016 it expects to be above about 40 percent of its goal. It has announced five more solar projects.

Microsoft says it has been 100 percent carbon neutral since 2014, but much of this comes from the purchase of carbon offsets, which are investments in things like tree planting or renewables projects meant to compensate for the fossil fuels a company consumes. The company hopes to have half of its electric power supplied from wind, solar and hydroelectric sources by 2018. Its data centers currently use about 3.3 million megawatt-hours of power a year.

Google has long championed uses of alternative energy. In 2007, it patented an idea for a floating data center that would be powered by waves. It was never built. Less fanciful, but so far equally fruitless, have been schemes to source lots of geothermal power, or capture the high-velocity winds of the stratosphere with large kites. It also takes pride in the energy efficiency of its data centers.

Critics note that while Google might be adding wind and solar to the world’s power grid, overall it is still dependent on fossil fuels, since sun and wind power are intermittent, while demand for things like YouTube cat videos is continual.

“In my mind it’s a P.R. gimmick,” said Chris Warren, vice president of communications at the Institute for Energy Research, a think tank in Washington supported largely by donations from individuals and companies in the fossil fuel industry. “If they think they can actually support themselves with wind and solar panels, they should connect them directly to their data centers.”

Next year’s goal will be 95 percent accomplished with wind turbines around the world, Mr. Kava said, and Google’s support for the industry could keep prices dropping, particularly relative to things like coal. “We’re technology-agnostic, but we’re not price-agnostic,” he said.

Correction: December 6, 2016

An earlier version of this article gave an outdated title for Jonathan Koomey at Stanford. He is a lecturer in the school of earth, energy and environmental sciences, not a research fellow at the Steyer-Taylor Center for Energy Policy and Finance.

CARIBBEAN BUSINESS

Puerto Rico Has More Outages than other US Jurisdictions

By Eva Lloréns Vélez on December 5, 2016

SAN JUAN – Puerto Rico Electric Power Authority (Prepa) customers experience a higher level of service interruptions than other U.S. jurisdictions.

The information came to light during Puerto Rico Energy Commission hearings to determine Prepa's request for a rate hike. The panel is trying to determine the public utility's revenue requirement and analyzing its operations thoroughly.

Prepa is seeking a rate that can cover a revenue requirement of about \$3 billion and that includes enough funds for capital investments as the utility isn't expected to go back to the market until at least 2020.

Photo Prepa's Aguirre Central plant (pictured) suffered a fire on Wednesday, Sept. 21, leaving most of Puerto Rico without electricity.

According to information provided to the energy commission in a report by Synapse Energy Associates, Prepa customers experience 11.5 outages a year, or around 20 hours' worth, which is at least three times what other utilities in the United States register. The average duration of the outage is 46 minutes. In mid - 2016, Prepa suffered massive outages caused by failures at the Aguirre and Palo Seco power plants. A fire in Aguirre complex left the island under a three-day blackout in September, bringing the system's deterioration to the forefront.

At the hearing, Prepa officials acknowledged the system's fragility.

Prepa's executive director, Javier Quintana, explained that forced outages—which are the shutdown of a power station, transmission line or distribution line when a generating unit is unable to produce power due to an unexpected breakdown—have increased because of postponed maintenance and shortage of staff.

Officials acknowledged that they have been deferring maintenance because they are waiting for conversion of the Aguirre power plant to use natural gas before engaging in major repairs. The Aguirre project has been delayed until at least until 2018.

Another reason provided was budget constraints and the loss of personnel. Skilled workers are leaving Prepa and not being replaced. About 1,000 workers left the utility in 2014 alone. Because of Act 66, the utility cannot grant salary hikes to retain workers.

Interruptions that aren't forced outages are caused by tree pruning, deterioration due to

weather as well as the condition of street poles and cables.

The financial difficulties have forced Prepa to shift from preventive maintenance to reactive maintenance, noted Jeremy Fisher, one of the commission's experts.

Fisher, however, noted that Prepa's rate-hike case seems to envision a modest increase in operations and maintenance budgets. He noted that despite the current state of the system, Prepa appears not to be investing in the system.

He said "limited use" units are operating more like generators in Prepa's primary fleet, but the utility isn't investing in the system despite needing these to provide service.

Prepa officials explained that they expect those limited-use units to be faded out when Aguirre and Palo Seco go back on line and, therefore, were not investing in their upkeep.

"It is not appropriate not to invest in these units," Fischer added.

BUFFALO NEWS

University at Buffalo professor named to EPA advisory board

Photo From left, UB professor Joseph Gardella, chemistry teacher Daniel Hildreth, and students Ryne McCarthy and Maggie Zaifert, both juniors, examine the progress of a graphene oxide experiment at South Park High School

By Jay Tokasz

Published December 6, 2016

University at Buffalo chemistry professor Joseph A. Gardella Jr. has been appointed to serve a three-year term on the U.S. Environmental Protection Agency (EPA) Science Advisory Board.

Gardella, an expert in environmental analytical chemistry, has been highly involved in identifying and quantifying pollutants in the environment, especially in Western New York.

His term on the advisory board began in November and will end Sept. 30, 2019.

The board consists of independent experts who provide advice to the EPA on scientific and technical issues.

Earlier this year, the EPA named Gardella one of 28 recipients of the Environmental Champion Award in New York State. The honor recognized his years of work in ensuring that the local community's voice was heard as the federal government decided what to do with nearly 200,000 cubic yards of radioactive waste stored in Lewiston — remnants of the Manhattan Project that produced the country's first nuclear weapons.

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